

## CLAIMS

We claim:

1. A motor controller comprising:

an interface for manually entering values of a motor output;

5 an input power setting determining module that automatically determines a motor input power setting based upon entered motor output values; and

a display portion that provides a visual display of the determined motor input power setting.

10 2. The motor controller as recited in claim 1, wherein said values of motor output comprise a motor rating value.

3. The motor controller as recited in claim 1, wherein said values of motor output comprise a motor efficiency value.

15 4. The motor controller as recited in claim 1, wherein said values of motor output comprise an external current transformer value.

5. The motor controller as recited in claim 1, including a trip module that  
20 automatically interrupts power to the motor responsive to an actual motor input power exceeding a motor input trip value that is based at least in part upon a motor output trip value.

25 6. The motor controller as recited in claim 5, wherein the controller automatically determines said motor input trip value based upon an entered motor output trip value.

7. The motor controller as recited in claim 1, wherein said interface selectively locks to prevent a user from changing a setting of the controller.

8. A machine assembly comprising:
  - a motor having associated values of motor output;
  - a device driven by said motor;
- 5 an input power setting determining module that automatically determines a motor input power setting, using the associated motor output values; and
  - a display portion that provides a visual display of the determined motor input power setting.
- 10 9. The machine assembly as recited in claim 8, wherein said values of motor output comprise a motor rating value.
10. The machine assembly as recited in claim 8, wherein said values of motor output comprise a motor efficiency value.
- 15 11. The machine assembly as recited in claim 8, wherein said device comprises a pump.
12. The machine assembly as recited in claim 8, including a trip module that automatically interrupts power to the motor responsive to an actual input power exceeding a motor input trip value that is based at least in part upon an entered motor output trip value.
- 20 13. The machine assembly as recited in claim 12, wherein the controller automatically determines said motor input trip value based upon an entered motor output trip value.
- 25 14. The machine assembly as recited in claim 8, including an interface for allowing a user to manually enter the associated values.
- 30 15. The machine assembly as recited in claim 14, wherein said interface selectively locks to prevent a user from changing a setting.

16. A method of determining a motor input power setting comprising the steps of:
  - receiving values of a motor output; and
  - automatically determining a motor input power setting based upon the received values of motor output.
- 5
17. The method as recited in claim 16, comprising displaying the determined motor input power setting.
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18. The method as recited in claim 16, comprising manually entering the motor output values including at least a motor rating value and a motor efficiency value.
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19. The method as recited in claim 16, comprising automatically determining an actual input power trip value responsive to a received motor output trip value and determining whether an actual input power corresponds to the trip value.